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FALL FOOD ITEMS UTILIZED BY CHUKARS IN CENTRAL ALBORZ

PROTECTED REGION, IRAN

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Abstract: Crop contents of 20 chukars shot in fall 1978 were analyzed, and the relationship between cover and food items were studied. Although a variety of food items were presented, different species of grass were determined. The grass was supplemented by a wide range of seeds, leaves, berries and insects. The chukars also feed on cereal grains, barley, and wheat.

Although the food habits of chukar partridge have been reported by others (NAGEL 1945, ALCORN and RICHARDSON 1951, CHRISTENSEN 1952 and 1954, GALBREATH and MORELAND 1953, HARPER 1958) there is a definite lack of published information from its native range near Karadj, Iran.

The purpose of this paper is to report some fall foods of chukar partridge in the southern slopes of Alborz mountains in Central Alborz protected region. A detailed comparison of chukar's native and foreign niches might provide guidelines for future introduction programs.

Study area and methods

The 20 crops used in this study came from a study area between Karadj and Tehran on the southern slopes of the Alborz Mountains. Vegetation of the collection area changes greatly with altitude. The lower elevations (1300-1550 m) are mainly covered by Artemisia herba alba, which is heavily grazed by sheep in winter and spring. This range is, as a result, overgrazed.

The lower parts of the mountains (1550-2000 m) are still covered by Artemisia herba alba as one of the dominant species, but in addition there is considerable shrubby vegetation of which Amygdalus spartioides is most common. Other shrubs include Berberis, Lonicera sp. Ephedra intermedia, Salsola sp. and Prunus sp.

In the gorges and small valleys, where there is a higher availability of water, Salix excelsa, Celtis spp., and figs (Picus carica) can frequently be seen. Pistacia spp. is locally common.

Trees and shrubs occur up to 2200 m. Although the range between 1550 and 2200 m is in a better condition than below 1550 m, it is locally overgrazed.

Above 2200 m the range is in a good condition as it is not utilized for extensive periods by shepherds and their flocks. At the highest elevations Astragalus spp. becomes most dominant, but they are intermixed with perennial grass (Stipa, Agrostis and Poa spp.).

All crops used were collected from birds shot during fall season. Sex and age data were recorded. All crops were labeled as to the site and date of shooting and individually placed in small jars until analysis. Later in the laboratory, the contents of each individual crop were identified.

Results and discussion

As is the case with many game animals, a relatively small number of plant species make up the bulk of the chukar's diet. Of the 31 different plant species recorded 2 species were important food items by frequency Salsola kali and Poa bulbosa (Table 1). Salsola vermiculata was also present in 6 crops. The leaves, stems and seeds of these plants were utilized. Bromus sp., Atriplex sp. were also present in the crops. The fruits of Ficus carica (figs) and Berberis vulgaris were present in the crop contents, too.

Animal matter occurred in 4 crops (Table 1). Insects from the families Lygaeidae and Saitelleridae were determined.

Gravel, not classed as a food was found in most crops.

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K a r a d i

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<i>Aethionema</i> sp.	+						+													
<i>Atriplex</i> sp.					+										+	+			+	
<i>Artemisia</i> herba-alba															+	+				
Animal mate- rial (in- sects)									+						+		+			
<i>Bromus</i> sp.							+	+		+										
<i>Berberis</i> vulgaris					+									+						
<i>Bumium</i> sp.	+																			
<i>Crataegus</i> sp.	+																			
<i>Echinophora</i> sp.																			+	
<i>Ficus carica</i>											+								+	
<i>Hethermate- lium</i> sp.	+						+									+				
<i>Hulthemia</i> sp.									+											
<i>Mespilus</i> sp.																		+		
<i>Noaea mucro- nata</i>									+								+			
<i>Ornithogalum</i> umbellatum													+							
<i>Poa bulbosa</i>				+		+		+	+			+	+	+			+			+
<i>Pulicaria</i> sp.	+																			
<i>Panicum</i> sp.											+									
<i>Phaseolus</i> vulgaris												+								
<i>Reseda lutea</i>	+																			
<i>Salsola kali</i>	+				+		+	+							+		+			
<i>Stipa</i> sp.									+											
<i>Salsola ver- miculata</i>	+							+	+							+		+	+	
Stone					+		+	+							+					
<i>Sorghum ha- lepensis</i>											+								+	
<i>Setaria</i> sp.												+								
<i>Turgenia</i> sp.	+														+				+	+
<i>Thlaspi ar- vense</i>									+											
Unknown sp.	+										+				+				+	+

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